

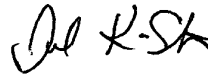
ai
ID NO:36). Alternatively, CD39 can be linked to another polypeptide (non-CD39) with or without a spacer amino acid linking group. As shown in Example 9, ThrSerSer or ThrSerSerGly (SEQ ID NO:37) linkers may be used to fuse IL2 residues to soluble CD39. For the expression of soluble CD39, the inventors have made the surprising and unexpected discovery that the fusion of 12 amino acids from the N-terminus of mature human IL2 to the solCD39 coding region, results in high levels of both expression and activity in the supernatants of transfected cells. Among the particularly preferred embodiments of the invention, therefore, are soluble CD39 polypeptides having an amino acid sequence SEQ ID NO:6 and nucleic acids, such as SEQ ID NO:5, that encode soluble CD39 polypeptides having an amino acid sequence SEQ ID NO:6.

REMARKS

In response to the Notice to Comply, Applicants submit a new Sequence Listing and insert sequence identifiers into the specification at pages 13-14. No new matter has been added.

If a telephone interview would be helpful in advancing the prosecution of this application, Applicants' attorney invites the Examiner to contact her at the number provided below.

Respectfully submitted,



Law Department
Immunex Corporation
51 University Street
Seattle, WA 98101

Julie K. Smith, Ph.D.
Attorney for Applicants
Registration No. 38,619
Telephone (206) 265-4079
Facsimile (206) 233-0644

APPENDIX
VERSION WITH MARKINGS TO SHOW CHANGES

In the Specification

The following is a marked up version of the paragraph at page 13, line 32, to page 14, line 7:

The present invention comprises fusion polypeptides with or without spacer amino acid linking groups. For example, two soluble CD39 domains can be linked with a linker sequence, such as (Gly)₄Ser(Gly)₅Ser (SEQ ID NO:32), which is described in United States Patent 5,073,627. Other linker sequences include, for example, GlyAlaGlyGlyAlaGlySer(Gly)₅Ser (SEQ ID NO:33), (Gly₄Ser)₂ (SEQ ID NO:34), (GlyThrPro)₃ (SEQ ID NO:35), and (Gly₄Ser)₃Gly₄SerGly₅Ser (SEQ ID NO:36). Alternatively, CD39 can be linked to another polypeptide (non-CD39) with or without a spacer amino acid linking group. As shown in Example 9, ThrSerSer or ThrSerSerGly (SEQ ID NO:37) linkers may be used to fuse IL2 residues to soluble CD39. For the expression of soluble CD39, the inventors have made the surprising and unexpected discovery that the fusion of 12 amino acids from the N-terminus of mature human IL2 to the solCD39 coding region, results in high levels of both expression and activity in the supernatants of transfected cells. Among the particularly preferred embodiments of the invention, therefore, are soluble CD39 polypeptides having an amino acid sequence SEQ ID NO:6 and nucleic acids, such as SEQ ID NO:5, that encode soluble CD39 polypeptides having an amino acid sequence SEQ ID NO:6.